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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO. .
10/816,118	04/01/2004	Ramadas Lakshmikanth Pai	15483US02	8484

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MCANDREWS HELD & MALLOY, LTD
500 WEST MADISON STREET
SUITE 3400
CHICAGO, IL 60661

EXAMINER

HOLDER, ANNER N

ART UNIT	PAPER NUMBER
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2621

MAIL DATE	DELIVERY MODE
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09/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/816,118

Applicant(s)

PAI ET AL.

Examiner

Anner Holder

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims:

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshioka et al. (Yoshioka) US 6,310,921 B1.

3. As to claim 1, Yoshioka teaches a video request manager [Fig. 3; Fig. 4; Fig. 16] comprising: a first state machine for commanding a memory controller to fetch reference pixels for a first portion of a picture; [Fig. 4; Fig. 16; Col. 11 Line 64 – Col. 12 Line 7; Col. 13 Line 56 – Col. 14 Line 4; Fig. 10; Col. 18 Lines 6-14] and a second state machine for commanding a memory controller to write a second portion of the picture. [Fig. 4; Col. 13 Line 56 – Col. 14 Line 4; Fig. 10; Col. 18 Lines 6-14, 20-27]

4. As to claim 2, Yoshioka teaches the second state machine commands the memory controller to write the second portion, such that a resource contention occurs between the command to fetch reference pixels, and the command to write the second portion. [Fig. 3; Fig. 4]

5. As to claim 3, Yoshioka teaches the second state machine commands the memory controller to write the second portion, such that the command to fetch reference pixels is given priority during the resource contention. [Col. 11 Lines 39-41; Col. 14 Lines 38-45]

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6. As to claim 4, Yoshioka teaches the second state machine commands the memory controller to write the second portion, such that the second portion is written to the memory controller while the memory controller fetches the reference pixels. [Col. 11 Lines 39-41; Col. 14 Lines 38-45]

7. As to claim 5, Yoshioka teaches a circuit for decoding video data, [Fig. 4 (1002); Col. 11 Lines 30-41; Col. 12 Line 62 – Col. 13 Line 4] said circuit comprising: a motion vector address computer for calculating at least one address for reference pixels for a first portion of a picture; [Col. 5 Lines 62-64; Col. 5 Line 67 Col. 6 Line 2; Fig. 6; Col. 14 Lines 38-45; Col. 13 Lines 66-67; Fig. 10; Col. 18 Lines 9-14; Fig. 21 Fig. 19; Col. 16 Lines 26-54] a motion compensator for decoding another portion of the picture; [Col. 15 Line 65 – Col. 16 Line 2; Fig. 15 (A&B); Col. 23 Lines 62-67] and a video request manager comprising: a first state machine for issuing a command to fetch reference pixels for a first portion of a picture; [Fig. 4; Fig. 16; Col. 11 Line 64 – Col. 12 Line 7; Col. 13 Line 56 – Col. 14 Line 4; Fig. 10; Col. 18 Lines 6-14] and a second state machine for issuing a command to write a second portion of the picture. [Fig. 4; Col. 13 Line 56 – Col. 14 Line 4; Fig. 10; Col. 18 Lines 6-14, 20-27]

8. As to claim 6, Yoshioka teaches a memory controller [Fig. 4 (6); Fig. 16 (26)] for fetching the reference pixels after the first state machine issues the command, and writing the second portion of the picture after the second state machine issues the command, and wherein the memory controller loads the second portion of the picture while fetching the reference pixels. [Col. 15 Line 65 – Col. 16 Line 2; Fig. 15 (A&B); Col. 23 Lines 62-67]

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9. As to claim 7, Yoshioka teaches the memory controller [Fig. 4 (6); Fig. 16 (26)] further comprises: an arbiter for causing the memory controller to give priority to the command to fetch the reference pixels. [Col. 11 Lines 39-41; Col. 14 Lines 38-45]

10. As to claim 8, Yoshioka teaches the memory controller [Fig. 4 (6); Fig. 16 (26)] further comprises: a write buffer for storing the second portion of the picture while fetching the reference pixels. [Col. 13 Line 56 – Col. 14 Line 4; Fig. 10; Col. 18 Lines 6-14]

11. As to claim 9, Yoshioka teaches the memory controller [Fig. 4 (6); Fig. 16 (26)] writes the second portion of the picture from the write buffer to a memory system, after fetching the reference pixels. [Col. 11 Lines 39-41; Col. 14 Lines 38-45]

12. As to claim 10, Yoshioka teaches a method for decoding video data, [Fig. 4 (1002); Col. 11 Lines 30-41; Col. 12 Line 62 – Col. 13 Line 4] said method comprising: calculating at least one address for reference pixels for a first portion of a picture; [Col. 5 Lines 62-64; Col. 5 Line 67 Col. 6 Line 2; Fig. 6; Col. 14 Lines 38-45; Col. 13 Lines 66-67; Fig. 10; Col. 18 Lines 9-14; Fig. 21 Fig. 19; Col. 16 Lines 26-54] decoding another portion of the picture; [Col. 15 Line 65 – Col. 16 Line 2; Fig. 15 (A&B); Col. 23 Lines 62-67] and issuing a command to fetch reference pixels for a first portion of a picture; [Col. 13 Line 56 – Col. 14 Line 4; Fig. 10; Col. 18 Lines 6-14] and issuing a command to write a second portion of the picture. [Col. 13 Line 56 – Col. 14 Line 4; Fig. 10; Col. 18 Lines 6-14]

13. As to Claim 11, Yoshioka teaches issuing the command to write causes a resource contention between the command to fetch reference pixels, [Col. 13 Line 56 – Col. 14 Line 4;

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Fig. 10; Col. 18 Lines 6-14] and the command to write the second portion. [Col. 13 Line 56 – Col. 14 Line 4; Fig. 10; Col. 18 Lines 6-14]

14. As to claim 12, Yoshioka teaches the command to fetch reference pixels is given priority during the resource contention. [Fig. 3; Col. 11 Lines 39-41; Col. 14 Lines 38-45]

15. As to claim 13, Yoshioka teaches fetching the reference pixels after the first state machine issues the command; [Col. 13 Line 56 – Col. 14 Line 4; Fig. 10; Col. 18 Lines 6-14] loading the second portion of the picture while fetching the reference pixels. [Col. 13 Line 56 – Col. 14 Line 4; Fig. 10; Col. 18 Lines 6-14]

16. As to claim 14, Yoshioka teaches the first portion comprises a macroblock, and wherein the second portion comprises another macroblock. [Fig. 5; Col. 13 Lines 35-46]

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hoogenboom et al. (US 5,675,387) teaches a use of state machines to a memory controller in a decoding and playback of selected video.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anner Holder whose telephone number is 571-270-1549. The examiner can normally be reached on M-Th, M-F 8 am - 3 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ANH 08/17/07



MEHRDAD DASTOURI
SUPERVISORY PATENT EXAMINER
TC 2600